

of the writer's personal experience with them, these biographies being, moreover, very pleasantly written. The immature and other special plumages of many of the species are also described at length. The twelve plates, drawn by Messrs. R. and J. L. Ridgway, are not satisfactory productions, the original colored drawings having been very faultily rendered by the lithographer.

Besides the extended bird matter, the work contains a very important report on the mammals, with the identifications and technical notes by Mr. F. W. True; another on the fishes, with notes by Dr. T. H. Bean; and a third on the Diurnal Lepidoptera, in conjunction with Mr. Harry Edwards.—J. A. A.

Jordan's New Manual of Vertebrates.*—The fifth edition of President Jordan's 'Manual of the Vertebrates' of the northeastern United States is practically a new work, not only being entirely rewritten and greatly enlarged, but so far extended in scope as to take in not only a considerably enlarged area (Missouri, Iowa, Minnesota, and the Provinces of Canada), but the marine species of the Eastern Coast from North Carolina to Nova Scotia. While presenting the same size and appearance externally as former editions, it contains probably double the amount of text, through the use of smaller type and a much larger type bed. The plan of the work is also essentially modified, and its general character greatly improved, through the fuller diagnoses given, and the analytical keys being based on structural characters instead of on artificial distinctions. The order of arrangement is also inverted, the fishes being treated first and the mammals last. The latest conclusions seem to be given in respect to questions of classification and nomenclature, and the work thus authoritatively brought down to date. For birds the arrangement and nomenclature of the A. O. U. Check-List is adopted. The reception given former editions shows that the work meets a want, which the new edition must fill to a much greater degree than has been the case heretofore, thus rendering the 'Manual' still more worthy of the large patronage it is sure to receive. The bird part is especially to be commended, in so far as such limited space can give salient and distinctive characters, it being indeed a *multum in parvo*.—J. A. A.

Sharpe's Birds in Nature.†—The present volume is elegantly gotten up, as regards typography, paper, and exterior, with elaborate designs in

*A Manual of the Vertebrate Animals of the United States, including the District north and east of the Ozark Mountains, south of the Laurentian Hills, north of the southern boundary of Virginia, and east of the Missouri River, inclusive of Marine Species. By David Starr Jordan, President of the University of Indiana. Fifth Edition, entirely rewritten and enlarged. Chicago: A. C. McClurg and Company. 1888. 8vo, pp. iii + 375.

†Birds in Nature. By R. Bowdler Sharpe, F. L. S., F. Z. S., Zoölogical Department, British Museum, etc., etc., etc. With Thirty-nine Colored Plates, and other Illustrations, by P. Robert. Boston: Estes & Lauriat. 1888. 4to. pp. v + 78.

the way of initial letters and tail-pieces for each chapter, and with full-page plates redundant in paint. The book is apparently intended as an ornamental gift-book for the holiday season. The text is no discredit to the eminent author whose name appears on the titlepage, and his biographies of the forty species of European birds treated form entertaining and instructive matter for the general reader, for whom they were doubtless intended, rather than for professional ornithologists. Mr. Robert's contribution of plates and tail-pieces will scarcely bear criticism from the technical standpoint, most of them having been too evidently copied from rather badly stuffed museum specimens, including their defects, with a back-ground which may be called striking rather than artistically effective. Doubtless the book will not lack admirers among the class it is intended to entertain.—J. A. A.

Birds of Nova Scotia.*—This annotated list is the latest contribution to the bird lore of the peninsular Province, by one whose name is already known in that connection. Mr. Downs has given us "as the result of sixty-six years of *practical field work*," a list of 240 species of birds, of which 4 are added on authority, 3 on the grounds of probability, and 3 without a word of comment, reducing those presumably observed by the writer to 230. The number seems very small, as it would be an easy matter to name over twenty additional species that certainly should have been found; indeed reference to the published papers of another Acadian naturalist (Dr. J. Bernard Gilpin) shows that nearly a dozen species have been omitted in the Birds of Prey and the Shore-birds alone. It is difficult to understand why Mr. Downs should leave out such species as the Wheatear, Bicknell's Thrush, Ipswich Sparrow, etc., since he was not confining himself to his own personal observations. The last-named omission is the more strange since the species is probably without exception the most peculiar and characteristic of the whole Acadian avifauna. Our author apparently not realizing that the only value of such a list must come from its explicitness and accuracy, records without qualification such remarkable occurrences as those of *Plegadis autumnalis*, *Anas penelope*, *Ardea carulea*, etc., omitting the usual data and references, without which the records have little, if any value. This carelessness with regard to localities and dates neutralizes the value of what might otherwise have been a most interesting series of records. A notable example is his brief reference to the finding of three "Great Auks"; doubtless the facts have been recorded elsewhere, but no careful writer would think of embodying them in his work without giving the proper references. Similar remarks will apply to his notes on the Labrador Duck, Purple Gallinule, Blue Grosbeak, and several other species.

His method of indicating the breeding species (by number in an appendix) is a great mistake; the remarks that are supposed to be thus tabu-

*Birds of Nova Scotia. By Andrew Downs, M. Z. S. Edited by Harry Piers. Proc. and Trans. Nova Scotia Inst. Nat. Sci. VII, pt. ii, 1888, pp. 142-178.